



# IMB-390-L

Micro ATX Motherboard

## KEY FEATURES

- Intel® 7<sup>th</sup>/ 6<sup>th</sup> Gen (Kabylake-S/Skyake-S) Core™ Processors with Q170 chipset
- 4 x 288-pin Long-DIMM up to 64GB DDR4 2133 MHz (16GB per DIMM)
- 1 x PCIe x16 (Gen3), 1 x PCIe x4 (Gen3), 2 x PCI, 6 x USB 3.1 Gen1, 6 x USB 2.0,
- 1 x mini-PCIe, 1 x mSATA, 6 x COM, 6 x SATA3
- 2 x Intel 1 Gigabit LAN
- Supports triple display, 1 x HDMI 2.0, 1 x DP 1.2a, 1 x VGA, 1 x LVDS, 1 x DVI-D
- TPM 2.0 onboard IC
- Supports Intel® vPro, AMT, RAID 0/1/5/10
- ATX PWR

## SPECIFICATIONS

### Form Factor

Dimensions	Micro ATX (9.6-in x 9.6-in)
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### Processor System

CPU	Intel® 7 <sup>th</sup> / 6 <sup>th</sup> Gen (Kabylake-S/Skyake-S) Core™ Processors, up to 65W
Chipset	Intel® Q170
Socket	LGA1151
BIOS	AMI SPI 128 Mbit

### Memory

Technology	Dual Channel DDR4 2133 MHz
Capacity	64GB (16GB per DIMM)
Socket	4 x 288-pin Long-DIMM

### Graphics

Controller	Intel® Gen9 Graphics DX 11/12
HDMI	HDMI 2.0 Max resolution up to 4096x2160@60Hz
DisplayPort	DisplayPort 1.2a, DP++ Max resolution up to 4096x2304@60Hz
VGA	Max resolution up to 1920x1200@60Hz
LVDS	Dual channel 24 bit up to 1920x1200@60Hz
eDP	N/A
DVI	DVI-D Max resolution up to 1920x1200@60Hz
MultiDisplay	Triple Display

### Expansion Slot

PCIe	1 x PCIe x16 (Gen3) 1 x PCIe x4 (Gen3)
PCI	2
mini-PCIe	1 x Full/Half size with PCIe x1 and USB 2.0
M.2	N/A

### Audio

Interface	Realtek ALC887/ALC897, High Definition Audio. Line-out, Mic-in
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### Ethernet

Controller/ Speed	LAN1: 1 x Intel® I210 with 10/100/1000 Mbps LAN2: 1 x Intel® I219LM with 10/100/1000 Mbps, supports AMT/vPro
Connector	2 x RJ-45

### Rear I/O

HDMI	1 x HDMI 2.0
DisplayPort	1 x DP 1.2a
VGA	1
DVI	1 x DVI-D
Ethernet	2 x 1 Gigabit LAN
USB	4 x USB 3.1 (Gen1)
Audio	3 (Mic-in, Line-in, Line-out)
COM	COM1(RS-232/422/485)
PS2	1 x PS/2 combo

### Internal Connector

USB	2 x USB 3.1 (Gen1) (1 x USB 3.0 header) 6 x USB 2.0 (3 x 2.54 pitch header)
COM	COM2,3,4,5,6 (RS-232)
Parallel	1 (shared with GPIO)
GPIO	8 x GPI, 8 x GPO (shared with LPT header)
TPM	TPM 2.0 onboard IC
LVDS	1
eDP	N/A
VGA	N/A
SATA PWR Output	N/A
Speaker Header	1

### Storage

M.2	N/A
mSATA	1 x Full size with shared SATA3 and USB 2.0
SATA	6 x SATA3, SATA3_6 shared with mSATA
RAID	Intel® SATA RAID 0/1/5/10

### Watchdog Timer

Output Interval	From Super I/O to drag RESETCON# 256 Segments, 0, 1, 2, ...255sec
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### Power Requirements

Input PWR Power On	ATX PWR (24+8-pin) AT/ATX Supported - AT : Directly PWR on as power input ready - ATX : Press button to PWR on after power input ready
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### Environment

Operating Temp	0°C ~ 60°C
Storage Temp	-40° C ~ 85° C
Operating Humidity	5% ~ 90%
Storage Humidity	5% ~ 90%

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